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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/040,975	12/28/2001	Richard H. Crump	10360-085001/13612BAUS01U	1741

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EXAMINER	
NEURAUTER, GEORGE C	
ART UNIT	PAPER NUMBER
2143	

DATE MAILED: 02/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/040,975	CRUMP ET AL.	
	Examiner	Art Unit	
	George C. Neurauter, Jr.	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 December 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claims 1-18 are currently pending and have been examined.

Claim Interpretation

A claim limitation will be interpreted to invoke 35 U.S.C. 112, sixth paragraph if it meets the following 3-prong analysis:

(A) the claim limitations must use the phrase "means for" or "step for";

(B) the "means for" or "step for" must be modified by functional language; and

(C) the phrase "means for" or "step for" must not be modified by sufficient structure, material or acts for achieving the specified function.

With respect to the first prong of this analysis, a claim element that does not include the phrase "means for" or "step for" will not be considered to invoke 35 U.S.C. 112, sixth paragraph. If an applicant wishes to have the claim limitation treated under 35 U.S.C. 112, sixth paragraph, applicant must either: (A) amend the claim to include the phrase "means for" or "step for" in accordance with these guidelines; or (B) show that even though the phrase "means for" or "step for" is not used, the claim limitation is written as a function to be performed and does not recite sufficient structure, material, or acts which would preclude application of 35 U.S.C. 112, sixth

paragraph. See *Watts v. XL Systems, Inc.*, 232 F.3d 877, 56 USPQ2d 1836 (Fed. Cir. 2000)

Claims 7-12, which recite a router machine, do not recite means or step plus function language, therefore, these claims do not invoke 35 U.S.C. 112, sixth paragraph since they fail to meet the criteria for this interpretation.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-5, 7-11, and 13-17 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent 6 594 704 to Birenback et al.

Regarding claim 1, Birenback discloses a method for routing a packet comprising:

receiving the packet from one of a plurality of address domains ("virtual private networks") through one of a plurality

of interfaces (column 3, lines 22-41, specifically lines 25-27 and 30-32); and

determining one of a plurality of routing tables for the packet according to a mapping array ("global table" or "single table"), the mapping array including pointers that associate the interfaces with the routing tables. (column 4, lines 30-42; column 4, line 52-column 5, line 2)

Regarding claim 2, Birenback discloses the method of claim 1 further comprising executing a single IP stack to receive the packet and determine the one routing table. (column 4, lines 30-38)

Regarding claim 3, Birenback discloses the method of claim 1 wherein the mapping array associates interfaces connecting to the same address domain with the same routing table. (column 4, line 52-column 5, line 2)

Regarding claim 4, Birenback discloses the method of claim 1 further comprising, after the one routing table is determined, forwarding the packet according to the one routing table if the packet is a data packet. (column 5, lines 12-19)

Regarding claim 6, Birenback discloses the method of claim 1 wherein each of the plurality of address domains represents a virtual private network. (column 3, lines 22-41, specifically lines 25-27 and 30-32)

Claims 7-10 and 12 are also rejected since claims 7-10 and 12 recite a router that contain substantially the same limitations as recited in claims 1-4 and 6 respectively.

Claims 13-16 and 18 are also rejected since claims 13-16 and 18 recite a computer program product that contain substantially the same limitations as recited in claims 1-4 and 6 respectively.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.

3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 5, 11, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birenback in view of "RFC 1247" by Moy.

Regarding claim 5, Birenback discloses the method of claim 1.

Birenback does not disclose the method further comprising, after the one routing table is determined, updating the one routing table if the packet is a route update packet, however, Birenback does disclose determining the one routing table as shown above regarding claim 1 and further discloses wherein the

one routing table may be updated and suggests that standard methods may be used to update the routing table (column 4, lines 42-47).

Moy discloses wherein, if a received packet is a route update packet (page 99, section A.3.5 "The Link State Update Packet), a routing table is updated (pages 72-74, section 13 "The Flooding Procedure", specifically page 73, step 5, substep (d); pages 74 and 75, section 13.2 "Installing link state advertisements in the database").

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of these references since Moy discloses that updating a routing table using a route update packet allows network topology updates to be sent to all routers within a network (page 2, specifically "Link State Advertisement"; page 20, section 4 "Functional Summary", specifically the paragraph "A router periodically advertises its state..."). In view of these specific advantages and that both references are directed to methods of updating a routing table, one of ordinary skill would have been motivated to combine these references and would have considered them to be analogous to one another based on their related fields of endeavor.

Claims 11 and 17 are rejected since claims 11 and 17 recite a router and computer program product that recite substantially the same limitations as recited in claim 5 and are subject to the same motivations regarding the obviousness of claim 5.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following prior art teaches the state of the art in routing packets in a plurality of address domains:

US Patent 6 081 524 to Chase et al;

US Patent 6 188 671 to Chase et al;

US Patent 6 339 595 to Rekhter et al;

US Patent 6 438 612 to Ylonen et al;

US Patent 6 526 056 to Rekhter et al;

US Patent 6 674 756 to Rao et al;

US Patent 6 847 611 to Chase et al;

US Patent Application Publication 2003/0041170 to Suzuki;

US Patent Application Publication 2003/0112799 to Chandra et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George C. Neurauter, Jr. whose telephone number is (571) 272-3918. The

examiner can normally be reached on Monday through Friday from 9AM to 5:30PM Eastern.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

gcn

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